Review of Architectural Flaws of the EMU: What Eurozone Crisis Lessons for the Proposed 'Afrozone'?

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by

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Abstract

There were evidence-prompted conclusions by many researches on the optimum currency area (OCA) theory that the European Monetary Union (EMU) is not an optimum currency area; and consequently, there were warnings about the dangers of a single monetary policy for the Eurozone because of the inability of the zone to fulfil the theoretical preconditions for an optimal currency area. The 2007 subprime crisis that transformed into global financial crisis ignited the Eurozone crisis of 2009 which substantially revealed some crucial flaws and inadequacies in the design of the Eurozone. This paper reviewed some literature on the original design of the European Monetary Union (EMU) and the post-financial crisis EMU (the Eurozone crisis), evaluated various debates on the sustainability of the EMU, identified the financial crisis-exposed defects in the design of Eurozone and well as the flaws inherent in the original optimum currency area (OCA) theory and its application to monetary integration, while making further efforts in highlighting lessons these have for the current monetary integration in the developing blocs of Africa and the proposed monetary integration of Africa. There has been the desire for the African Monetary Union which aims at the creation of a unified currency for the African continent. The 1991 Abuja treaty set out six stages in the process of achieving a monetary union and a single currency for Africa by 2028. The strategy for African monetary integration is based on progressive economic and monetary integration of African economic communities (ECOWAS, EAC, SADC etc) which are regarded as building blocks of Africa. This proposed African common currency is to be known as '*afro'*. This prompted this writer to tag the area that would eventually adopt this common currency as '*Afrozone*' in this paper. Some of the major Eurozone design flaws identified in this paper as those exposed by the Eurozone crisis are: (i) the absence of effective economic governance mechanism; (ii) the retention of banking supervision and resolution at national levels; (iii) the lack of financial back-stops and crisis resolution mechanisms at the union level; and (iv) defects in the design of the Eurozone's common central bank. This paper highlights fifteen Eurozone crisis lessons for a complete and sustainable 'Afrozone' being proposed for the continent of Africa by 2028.

1. Introduction

Many researches on the optimum currency area (OCA) theory have evidently concluded that the Eurozone is not an OCA and consequently, as they were giving warnings about the dangers of a single monetary policy for the zone because of the zone's inability to fulfil the OCA theoretical preconditions for an optimal currency area.[1] The Eurozone crisis of 2009 (propelled by the 2007 subprime crisis that transformed the global financial crisis) substantially revealed some crucial flaws and inadequacies in the design of the Eurozone. Initially, from the second half of the 1980s, a large body of monetary integration researches could reveal: (a) how the EMU was to be designed; (b) the conditions that were necessary for the success of the 'proposed' monetary union; and (c) the impending dangers of not establishing a true and genuine monetary union in Europe.[2] De Grauwe (1992) developed the first monetary integration model while Fratiani and von Hagen (1992) and Gros and Thygessen (1992) gave some insights on the benefits and costs of monetary unifications. As Eichengreen and von Hagen (1995) developed fiscal policy and fiscal federalism issues in a monetary union, De la Dahesa and Krugman (1993) and Krugman and Venables (1993) revealed the 'regional and agglomeration effects of a monetary union'. Nevertheless, the aim of this paper was an extensive review of literature on the original design of the European Monetary Union (EMU) and the post-financial crisis EMU (the Eurozone crisis), identifying the financial crisis-exposed architectural flaws of the Eurozone from which the proposed African monetary integration could draw some beneficial lessons.

The global interests in the formation of currency union arrangements were ignited and stimulated by the establishment of the Economic and Monetary Union (EMU) and the adoption of the euro as a single currency on 1 January 1999. There is currently a special project for an African monetary cooperation.[3] The continent of Africa has the largest number of countries and the largest number of currencies. Following the monetary integration trends in Europe, there has been the desire for the African Monetary Union

[1] Some these research works are carried out by Krugman (1993), Decressin and Fatas (1995), McKinnon (2001), Wyplosz (2006), among others.

[2] Some of these research works were contained in '*The European Monetary System*' edited by Giavazzi, Micoss and Miller (1998); '*A European Central Bank?*' edited by de Cecco and Giovaninni (1998) and various editions of '*Monitoring European Integration*' and annual reports produced by the Centre for Economic Policy Research (CEPR) from 1990-2003 as referenced by de la Dehesa (2012).

[3] This is in respect of the currency unions sharing the two separate CFA francs in Central Africa and West Africa respectively

which aims at the creation of a unified currency for the African continent. This proposed African common currency is to be known as '*afro'*. This prompted this writer to tag the area that would eventually adopt this common currency as '*Afrozone*' in this paper.

Economists and other analysts consider the step towards a stronger and great African regional integration to be in the interest of Africa because of the small size (in terms of economy and population) of many African countries. Over decades ago, many regional economic groups were evolved in Africa for the purpose of free trade. Some of these regional economic groups still exist till date while some are modifications and rejuvenations of those that were in existence during the colonial regimes in Africa.[4] Nevertheless, there are plans in pipeline for several currency unions within the regions of Africa as at present. This plan, set out in the 1991 Abuja Treaty, makes an African single currency the African Union's long term goal. Article 44 of the 1991 Abuja Treaty states that ".......member states shall within a timetable to be determined by the Assembly (of the Organisation of African Unity), harmonise their monetary, financial and payments policies and boost intra-community trade in goods and services to further the objectives of the community and to enhance monetary cooperation among member states."[5] The 1991 Abuja treaty set out six stages in the process of achieving a monetary union and a single currency for Africa by 2028.[6] The strategy for African monetary integration is based on progressive economic and monetary integration of African economic communities which are regarded as building blocks of Africa. These economic communities are the East African Community (EAC), the Southern African Development Community (SADC) and the Economic Community of the West African States (ECOWAS).

This paper therefore evaluated various debates on the sustainability of the EMU and various revealed defects in the design of Eurozone and well as the flaws inherent in the original optimum currency area (OCA) theory and its application to monetary integration; while further efforts were made to highlight lessons these have for the current monetary integration in the developing blocs of Africa.

[4] Presently, South Africa's Monetary Area and the CFA franc Zones in Central and West Africa respectively are the monetary integration arrangements that still exist.
[5] Regional Integration- http://www.uneca.org/aria3/chap1.pdf

[6] The 1991 Abuja Treaty which was signed on 3 June 1991 and was effective in May 1994 established the African Economic Community.

2. Historical Background of Monetary Integration of Europe

The history of monetary integration in the Europe continent could be traced back to the emergence of the Austro-German Monetary Union which commenced in 1857 and lasted till 1861. Some of the other monetary unions among the European nations were the Latin Monetary Union which was in existence for sixty one years (1865-1926) and the Scandinavian Monetary Union that existed between 1873 and 1931. The German Monetary Union finally came into creation in 1876 after many stages of transformation; and this caused the creation of the *Reichmark* and the *Reichsbank* which were precursors of the former German currency, the *Deutsche mark* (DM) and the German central bank, the Bundesbank respectively (de Vanssay, 1999). Genuine efforts towards monetary integration in Europe were made after the World War II which Sanchis i Marco (2014) quoting Triffin (1962) described as the period of European 'liberalism triumphant'. The two major monetary agreements followed: (i) Intra-European Payments and Compensation (which existed for two years – 1948-1950) and (ii) the European Payment Union (which lasted for seven years - (1950-1956) and this was regarded as the 'first step towards convertibility' (Sanchis i Marco, 2014).

The enthusiasm to have a stronger European monetary union (of single currency) grew between late 1960s and early 1970s with various plans (The Barre Plans of 1969, The Schiller Plan, The Werner Plan of 1970. The Exchange Rate Mechanism (ERM) of the European Monetary System (EMS) was preceded by the European Monetary Snake which lasted for sixteen years between 1972 and 1978. However, the 1969 initial plan for a single European currency was stalled by the 1971 collapse of the Bretton Wood System and the 1972/73 oil crisis; thus culminating into postponement until the momentum was gathered around the late 1980s and early 1990s with the 1989 Jacque Delors Report on Economic and Monetary Union (EMU), igniting the course by drawing a 3-stage plans towards realising the formation of EMU. Within this ten-year period (1992-2002) three-stage plan was set towards adopting the single currency (the euro) with the particular aim of fostering the EU economies as regards inflation rates, interest rates, exchanges rates, budget deficits and public debts as stipulated by the Maastricht Treaty of 1992. Eventually, by 1 January 2002, the euro single currency became operational as the single currency of twelve (of the fifteen) EU members.

The Economists' Views and the Monetarists' Views were the two opposing views as at transitory period of the formation of the Eurozone. The argument of the Economists' was that it was necessary to have deep economic integration before the final introduction of euro (at the last stage of the process). Various economic convergence criteria (to be met by intending members of the 'proposed monetary union' for a long term before the adoption of the euro) are the products of the Economists'. On the other hand, the Monetarists' argument was that the creation of a common currency would automatically cause some economic adjustments in the direction of making a monetary zone (Eurozone) an OCA, placing huge reliance on the numerous institutional changes that were expected to accompany the creation of the monetary union (Eurozone) and the introduction of the single currency (euro) and not when a common central bank (the sole monetary authority) and a union-wide economic/fiscal policies are instituted. Despite the willingness of the founding members of the Eurozone to transfer monetary control to common central bank, they were unwilling to release the national powers in financial regulation, supervision and fiscal policy and other non-monetary policy aspects. As established by the Maastricht Treaty, euro succeeded national legacy divergences with the Eurozone. This is in contrast with historical example of monetary union, and this made the euro a currency without a nation, characterised by European institutions and an association of member nations.

Previous and present monetary arrangements show some similarities and differences with trends and records of failures, crises and sustained successes. The aim of creating the Latin Monetary Union (LMU) in 1865 was the harmonisation of the gold and silver contents of the coins of members of the monetary union (Belgium, France, Italy and Switzerland). This depicted the LMU not as a monetary union, but a 'coinage union' that lacked common unit of account, common central bank and common political framework. The legal tender in the Scandinavian Monetary Union (SMU) which comprised of Denmark, Norway and Sweden were coins, gold, silver and bronze. These member countries' central bank operated current accounts with each other. With this, they were drawing bankers' drafts at par on each of the currencies. However, economic policy coordination in the SMU was lacking, individual country's currency was maintained, while the three central banks involved were independent (operating different monetary policies). Anglo-Irish (A-I) Monetary Union was one of the many 'monetary unions' that operated in small scale with a mix of large and small economies. The legal tender in one country was acceptable in the other countries within this monetary union which began in 1922 (on Ireland independence) and collapsed in 1979. During the colonial days, the currency board system was in operation. Under this system, dependent nations and colonial territories were issuing their respective currencies. The key feature was that local currencies were freely exchanged (at par) for foreign currency while enough foreign-denominated must be available to cover the entire monetary base liabilities (O'Rouke and Taylor, 2013). Currency boards (CB) were characterised by the absence of a single currency and a common central bank while member countries can leave the currency arrangement at any time. The gold standard (GS) as a series of country-by-country monetary regimes was an arrangement under which there were linkages in currency values and price of gold; and monetary authorities are obliged to hold reserves that would be sufficient enough to make the commitment involved to be more credible. Strictly speaking, the gold standard was not a formal exchange rate agreement, but later became a quasi-fixed exchange rate regime when the prices of gold became almost harmonised in different countries. Salient feature under the gold standard systems were: (i) the operation of individual currencies; (ii) individual central banks; (iii) separate political sovereignty; and (iv) independent financial sovereignty. Countries involved were free to cut the currency/gold linkages at any time, if they so wished.

Globally, the history of monetary unions shows that many previous efforts at durable monetary union failed. Therefore, the assumption that the Eurozone could not fail, following the trends in history, may be unreasonable. The success and durability of the monetary integration of the United States (US) could partly be attributed to the features of fiscal and political union that are visible in this monetary union. The Eurozone lacks these elements including banking union, risk-sharing mechanism of automatic fiscal transfers among its members. A monetary union that is lacking sufficiently large fiscal machinery would in the long run, find it difficult to function effectively. There could be political instability in a monetary union if appropriate fiscal tools that could soften the effects of asymmetric economic shocks are lacking.[7]

[7] Within a monetary union, shocks are asymmetric when the economy of the entire monetary region is affected by an economic shock (sharp exchange rate appreciation or domestic banking crisis) in disproportional ways.

The features of the United States' monetary system show that the US is truly a monetary union that gradually evolved a common central bank, a fiscal union and a banking union. The monetary union goes beyond an arrangement for hard exchange rate peg among member states. Political union preceded monetary union in the US. These are the undoubted feature that guaranteed the remarkable successes and sustainability of the US monetary union. The EMU which has a single currency and a common central bank whose aim is price stability (maintaining inflation at less than 2% levels) has successfully removed exchange rate risks among its members. The features of the EMU according to its original design show that: (i) banking supervision crisis resolution and deposit insurance are handled at the national levels; (ii) a banking union is lacking; (iii) there is an absence of a common fiscal authority; (iv) there is no government bail-out of member states; (v) there is no provision for an exit from the monetary cooperation arrangement. Table 1 below provides brief comparative features of these past and present monetary unions (including the EMU):

Table 1: Comparison of Some Past and Present Currency/Monetary Unions

Properties:	***LMU***	***SMU***	***A-I***	***CB***	***GS***	***US***	***EMU***
*Elimination of exchange rate variability:	No	No	Yes	Yes	No	Yes	Yes
*Elimination of national currencies:	No	No	No	No	No	Yes	Yes
*Easy exit:	Yes	Yes	Yes	Yes	Yes	No	No
*Temporary escape clause:	Yes	Yes	No	No	Yes	No	No
*Common central bank:	No	No	No	No	No	Yes	Yes
*Mutual acceptability of paper currency:	No	Yes	Yes	Varies	No	Yes	Yes
*Fiscal union:	No	No	No	No	No	Yes	No
*Political union:	No	No	No	No	No	Yes	No
*Banking union:	No	No	No	No	No	Yes	No
*Symmetry of the union:	Yes	Yes	No	No	Yes	Yes	Yes
*High labour mobility:	Partial	Partial	Yes	Varies	Partial	Yes	No

Author's compilation

Some useful lessons are however, derivable for the African monetary integration project from the features of some past and present monetary unions. The brief analysis undertaken under this sub-section indicates that the US monetary union and the EMU are still existing (apart from the CFA monetary zones in the Central and West African sub-region). While the US monetary union (which had a political union preceding a monetary union) is highly successful, the EMU on the other, while gambling to develop a monetary union (without a political union, banking union and fiscal federalism) is currently struggling to get out of the financial crises which is affecting its stability. This is one of the justifications for a study on what the African monetary integration projects can derive from the Eurozone crisis while taking cognisance of the features of the US monetary union which in turn, guaranteed its success. Stemming from this background, this paper places value on the initial assessment of the Eurozone as an optimal currency area, consider various discussions on the financial crisis and of the sustainability of the Eurozone, by highlighting those 'design failures' and some important and relevant factors and issues that were not included in the theoretical evaluation of the EMU in particular and monetary unions in general, highlighting the extent to which the experiences of the Eurozone and other advanced monetary union have served as relevant lessons for monetary union initiatives within the African continent.

3 Assessment of the Eurozone as an Optimal Currency Area (OCA)[8]

Around the inception of the euro (the third stage of EMU development), academic literature offered a measure of 'convergence mountain to be climbed' by prospective members of the Eurozone. The expected characteristics of the EMU member states in determining the likely success or failure of the Eurozone (as offered by the OCA theory) are as summarised in Table 2 below showing how the entire Eurozone fared in the achievement of some of the crucial convergence factors at the start of the Eurozone: [9]

Table 2: Summary of Conclusions in Literature on the Posture of the EMU in the Context of the Convergence Factors

	Convergence	Narration of Achievement in Eurozone
	Labour Mobility	A variety of measures pointed to the conclusion that labour mobility and the speed of labour market adjustment are lower in Europe when compared with the United States. Furthermore, in a 2007 economic survey of the EU, the OECD established that geographic labour mobility was low as only 4% of the EU workforce have worked lived outside their domestic environments, while language barrier was a crucial issue.[10]
	Degree of Commodities Market Integration	This relates to the similarity in production structures of the Eurozone member countries. In assessing the UK's proposed membership of the Eurozone, the UK when compared with Eurozone's member countries there were evidence to support the inference that there is dissimilarities in production structures of the countries analysed, and that the UK's greater reliance on export involving high-tech production and on a huge percentage of home owner-occupiers were subjected to variable rate of interest.[11]
	Openness and Size of the Economy	Many literatures on EMU got the evidence to suggest that this is a criterion fulfilled as the degree of openness within the Eurozone were high across member countries. Willett et al

[8] This section borrows largely from evidence gathered and conclusions made by The New Europe Trust (2001).
[9] With reference to Brian Burkitt as quoted by The New Europe Research Trust (2001).
[10] Eichengreen (1990) in an assessment of labour mobility and the incidence of shock in Europe, made the comparison of comparable measures between Europe on one hand and Canada and the United States of the other hand.
[11] Weber (1991) and Eltis (1996)

		(2010) in investigating the endogeneity of the OCA theory observed the rapid growth in the intra euro trade/GDP ratios of the Eurozone countries, moving from the mid-90s 25% to above 40% by 2000.[12] The evidence got by Trichet (2006) shows increase in total intra Eurozone trade in goods and services from 31.5% to 37.5% between 1998 and 2005.[13]
	Degree of Commodity Diversification	Because most Eurozone countries are industrialised nations, it would be very easy for these countries to fulfil this condition of high level of commodity diversification.
	Fiscal Integration	Eichengreen et al (1990) and Feldstein (1992) established that as at the time of going into the EMU, the least satisfied condition was the fiscal federation criteria, a flaw described by De Grauwe (2014) as a 'major design failure'. Pasimeni (2013) making references to the 'Marjolin Report' of 1975 and the 'MacDougall Report' of 1977 highlights that the problem of a common fiscal capacity at the European level was well noticed. MacDougall (1992) concluded that for a foreseeable future, there may not be significant development of intra-Eurozone fiscal transfer subsequently after the start of the Eurozone.
	Degree of Political Integration	Krugman and Obstfeld (2003) among other literature on the establishment of the Eurozone concluded that as at the commencement of the Eurozone, monetary union was placed above political union.
	Similarities in Inflation	At the stage of entering the EMU, most Eurozone member state (courtesy of their ERM membership) took on economic policies that strategically caused them to achieve similarities in inflation rates, though this was at the cost of high employment rated across the whole of Europe (Baimbridge et al, 1998).
	Price and Wage Flexibility	Results from many studies on price and wage flexibility show that there were evidences to support the claims that as at the time of going into EMU, there were substantial wage-price rigidity across Europe.[14]

Source: Author's compilation

What could be infer from the above is that many of the countries currently operating within the euro system failed to climb the 'mountain' depicted by the OCA characteristics as specified by the theory and as expressed above.

4 The Eurozone Crisis: Origin and Causes

Deficiencies and incompleteness of the construction of the Eurozone were exposed by the financial crisis which clearly revealed that the euro area is not an OCA. There were beliefs in many quarters that the financial crisis in the Eurozone (euro crisis) portrayed as 'debt crisis' principally emanated from the underlying problem of asset bubble (in the US) which resulted into bust or over indebtedness of the Europe sovereign that no longer have access to the financial market. Apart from this principal real nature of Eurozone

[12] Though, the test of the assumption of the OCA theory failed in this respect.
[13] This is from a paper presented by Jean-Claude Trichet, the President of ECB at the 15th European Regional Conference of the Board of Governors in Paris on 31st March 2006
[14] Blanchard and Katz (1992), Eichengreen, (1991), (1993), Calmfors and Driffil, (1998) and Goodhart (1996).

crisis, the other major aspect of the financial crisis is the financial panic propelled by the underlying problem of asset bubble.[15]

The Europe continent was a 'by-stander' as at the emergence of the sparking of the financial crisis which originated in the US housing boom, leading to the rise in the subprime mortgage market and the following housing market busts caused by lax regulation and the consequential decline in the market. As an act of remedy, the Federal Reserve dramatically cut policy rates at the beginning of the 1990s while the 'stand-byer' ECB did not act in this direction. While the US recorded chronic current account deficit, the Eurozone's current account, in contrast was 'broadly balanced'. Though, Eichengreen (2012) identifies 'isolated failure of some Europe's financial institutions (like Fortis and Dexia)' but none of these failures were as catastrophic as the Lehman Brothers' collapse. This diffuses the conclusion in most Eurozone member countries that the Eurozone financial crisis emanated from outside Europe. In addition, substantial losses in mortgage markets were recorded by financial institutions within Europe, thus indicating risk management and internal control shortcomings within the Eurosystem (which are not American).

Some of the defects and flaws in the design of the EMU were made manifest during the 2008/2009 financial crisis. The OCA theory (Mundell, 1961) projected that a complete monetary union is optimal if there are similarities in economic structures of member state which would cause similar (symmetric) reactions to shocks. The Eurozone crisis is the form of asymmetric shock highlighted by the OCA theory. When there were downward movements in housing prices, these falls were more dramatic in some member countries than others and the resultant increase in the rate of unemployment were not similar in the Eurozone countries. Due to the 'widening spreads and the associated credit default swaps', public finances of many Eurozone member countries were strained (Eichengreen, 2009).[16] Governments in the Eurozone recorded dramatic increases in public debts as a result of the need to act in avoidance of domestic banking collapse and ensure the sustenance of their various national economies. Presumably, given these situations, many Eurozone countries would have preferred different policy

[15]The two real nature of the financial crisis in the Eurozone are scenarios in which somebody in a hugely crowded theatre hall cries "fire". Actually, there may be fire, but people may trample upon each other to death in panic rush to escape from the fire. There would be panic whether the alarm turns out to be real or false (Schmieding, 2012).

[16]'Spreads' means the differences between 10-year government bond rate of Germany and those of each European country.

responses to the crisis situations. This depicts that the 'one-size-fits-all monetary policy' should have been out of the Eurosystem's design. The financial crisis was able to reveal the long-standing criticisms of the euro-sceptics about the design and architecture of the EMU because of the suggestions from many quarters that the EMU was responsible for the crisis or at least, worsened the financial crisis.

The Eurozone crisis is better understood from the view point of the EMU's unique institutional set up in which member countries of the Eurozone came together operating one common monetary policy with seventeen (17) macroeconomic and fiscal policies. This implies a single currency area made up of many (17) sovereign member countries (one money, many economic and fiscal policies). These sovereign states were given freedom that is sufficiently enough to safeguard their individual diversity, establish their own business model, formulate their own fiscal policies and tailor their institutional and other economic and political policies in tune with their respective national preferences which are very likely to differ in many respects (like income distribution, roles played by the government in manipulating the economy). Member sovereign governments bore the consequences of these actions, creating members' vulnerabilities while the option of public debt mutualisation among the sovereigns was ruled out. In the first instance, the above factor combined together, causes the partial shift of fiscal recklessness from one sovereign to the others thus leading to fiscal deficit bias. For the monetary union as a whole, a country's lack of fiscal sustainability has consequences arising out of the harmful nature of excessive public debts. In the Eurozone, excessive public debt caused upward movements of the long term interest rate for all members. The second instance is that Eurozone members' public debts were issued in a currency they cannot create.

A favourable implication of the creation of the Eurozone and the introduction of the euro is the abundance of capital coming out of the elimination of exchange rate risks. These beneficially stimulated real estate investment and consumption (public and private). However, over time, there were decline in competitiveness while there were sharp increase in unit labour costs within the Eurozone. For instance, during the pre-euro crisis period following the formation of the Eurozone, there were per annum increase of 3.0% in Spain's unit labour cost, while Germany recorded -0.1% decline over same period. The 2007 financial crisis opened up fiscal vulnerabilities apparent in sharp increases in affected member's interest rate and shift in investors' sentiment. These triggered the Eurozone crisis.

The crisis in the Eurozone could therefore be described as 'systematic' in nature, springing from the consequences of the flaws in the design, construction and implementation of the EMU project. The crisis can be described as self-inflicted crisis which could have been avoided. Specifically, the crisis is a repercussion of the failure to put some essential components in place for the formation of a monetary union viz: (a) failure to establish a banking union that should accompany the monetary union; (b) failure to institute a lender of last resort (LOLR) for sovereign borrowings;[17] (c) inadequacy of surveillance and regulatory mechanism that should be expected to guide against potentially destabilising effects of credit flows within the monetary union and the build-up of members' states' current accounts imbalances; (d) too narrow focus on price stability (inflation moderation) on the overall at the monetary union's level at the expense of other macroeconomic targets like economic growth, employment, financial stability etc. (McDonnell, 2012).

A thorough consideration of trends of events in the Eurozone since its design and take-off reveal three main flaws in the design of the Eurozone. This is a signal that the designers of the EMU ' may have sufficiently internalised the implications of creating the euro as a currency without a state'.[18] The discussions of the three broad categories of the EMU design flaws are made below in Boxes A to C The first major flaw in Box A was about the Eurozone's design failure to provide a mechanism for effective economic governance in which monetary policy adjustment could be imposed (at the monetary union level) on members that are out of line.[19]

Box A: Major Flaw 1 - Absence of Effective Economic Governance Mechanism:
In the practical sense, economic and employment policies meant for individual member countries were not enforced but largely ignored, hence the lack of effective tools to correct macroeconomic imbalances. Because of the irrevocably fixed exchange regime in the Eurozone, and with the assumption of high level of flexibility within the economy, it is only prices and costs adjustments that could correct cross country differences in competitiveness. However, output and employment should be adjusted (as federal funding is lacking in assistance) in situations of slow downward rigidity of prices and costs when there is slow implementation of structural reforms that are meant to address the rigidities in supply. It was observed that macroeconomic divergences in the Eurozone were also aggravated when competitive member nations enjoyed better economic growth (Landmann, 2011 and De Rougemont and Winkler, 2014).[20] Consequently, in the wake of the financial crisis, Eurozone countries that recorded recurring current account deficits, weak competitiveness, excessive private/public debts and other economic imbalances

[17] The LOLR as an institution should have been with the responsibility and authority having the resources to fund borrowers face with liquidity crisis in order to avoid liquidity problem turning to solvency crisis within the monetary system and safeguard against moral hazards.

[18](Riet, 2013).

[19] Even as the Maastricht Treaty revealed an Economic and Monetary Union (EMU), the 'economic' part was missing (Riet, 2013).

[20] Delor's Report admitted the underestimation of the Eurozone as a single market with a single currency exacerbating divergences among members.

specifically experienced the financial market vulnerabilities. Public sector funding stood as replacements for the reversed private sector capital flows. Although, in the aspect of fiscal policies, the Treaty specified limits of public sector deficits (budget balance and gross debts), including sanctions against erring members, the correction of excessive budget deficit was however sluggish while the enforcement of appropriate sanction was avoided. There were apparent resistance in 2003, by German and France to correct their excessive budget deficits. This caused a dent on the Eurozone's fiscal governance incentives meant to ensure sound public finances were further undermined when more flexibility in response to country-specific mitigating conditions were introduced in 2005 by the SGP. In the Eurozone, the after-effects of these (as the global financial crisis set in) were high levels of public sector debt rising further due to subsequent bank rescues, fiscal stimulus and austerity measures including economic recession. There were increases in sovereign bond yield and concerns for solvency due to liquidity stress resulting from the spread of market volatility to vulnerable Eurozone countries.

The second major flaw in Box B is on the retention of the Eurozone's banking supervision and banking resolution within Eurozone in the hands of sovereigns at national levels.

Box B: Major Flaw 2 - Retaining Banking Supervision and Resolution at National Levels
This ignores the trade-offs in the financial trilemma. The Eurozone's financial integration (particularly in retail banking), due to its incomplete nature, allowed the accumulation of foreign short term liabilities and debt-based interbank liabilities, but concentrated their assets with real estate borrowers at home rather than diversifying the risks involved (Draghi, 2014). Banks' balance sheets are consequently made vulnerable to asymmetric shocks, external contagion effect due to the mismatch; and eventually, the sovereign governments bear the bail-out burden. Also, cross-border inter-country financial interaction further made the preservation of financial stability at natural levels worse. This caused the Eurozone's sovereign government to (a) act in line with their individual own banking rules in banking supervision within their domains; (b) use their local judgments in applying the European banking laws; and (c) made their own self decisions in recapitalising banks that were over-burdened with debts and in determining if forbearance is needed in handling non-performing loans in banks' portfolios. In a single market (like the Eurozone), when financial policies are formulated and implemented at national levels, close coordination of member states is necessary when handling international banks. Unfortunately, this failed to work well for the Eurozone during the crisis, as the need to maintain financial stability within the EMU caused the breaking-up (or restructuring at short notice) of cross-border banks. There were no enough fiscal space in many member countries to the rescue of ailing banks. In some countries having large number of unviable retail banks, private sector was over-indebted in addition to recording excessive liabilities, while the size of the banking sector in some over-banked countries enormously exceeded their GDP. The differing features of the Eurozone's financial system propelled a 'vicious feedback loop' between troubled banks that had their balance sheets reflecting large volumes of sovereign debts and the vulnerable sovereign governments that have fiscal spaces that were not enough for the rescue operations. The consequent increase in interest rates (lending and borrowing) resulted in huge creditworthiness fragmentation of Eurozone's financial market along national lines. The financial crisis also exposed the absence of the tools for the management of cross-border flows of capital and for the prevention of regional credit boom, and the Eurozone's common central bank could not handle these. There is also a lack of macro-prudential policies at the national levels (or coordinated at the union-wide levels). The EMU design shifted this to a future time.

The third major faults explained in Box C rests of the failure of the EMU design to institute financial back-stops and crisis resolution mechanisms.

Box C: Major Flaw 3 - Lack of Financial Back-stops and Crisis Resolution Mechanisms at the Union Level
At the Eurozone level, there was: (i) the lack of built-in financial backstops that could give supports to a sovereign government experiencing serious liquidity quagmire; (ii) the absence of a mechanism that would give room to insolvent national governments to organise the restructuring of their debts. The Eurozone's common central bank is forbidden from financing sovereigns as well as prohibiting measure forcing banks to preferentially finance national governments.[21] Even with good purpose, convergence (entry) criteria and rules, the Eurozone architecture failed to incorporate crisis resolution mechanism in situation when a member country encounters harsh problems and could not access international financial markets. What such design depicted was a Eurozone of fair weather that could not be sustained in stormy weather. Owing to the heavy cross-border finance received by some Eurozone members during the first decade of the union, the sudden stop of these capital inflow made these countries to be vulnerable during crisis. So, when the high interest rates and funding difficulties came calling, sovereign governments fell into self-fulfilling defaults.[22] The essential 'sudden backstop' of official funding for Eurozone countries facing the sudden stop in international funding was lacking. These are the reasons why De Grauwe (2012) concluded that euro was characterised by a 'systematic fragility' because member countries of the Eurozone exposed to erratic capital inflow were opened to vulnerabilities and contagion. These countries lack the crisis-time support of a federal state and the option to seek for bail-out from other members of the union. Whenever these countries face huge shock, they rely on market expectations because they lack a central bank that could print the fiat currency needed for the redemption of their debts. It is therefore necessary to put in place, a process of getting rid of unsustainable debt and prevent contagion within Eurozone.[23]

4.1 Defects in the Design of the Eurozone's Common Central Bank

The European Central Bank (ECB), being the institution charged with the responsibility for making monetary decisions for Eurozone, is a centrepiece for the EMU. In 1999, when Eurozone was formed, the ECB took over the monetary decision making function of national central banks in all Eurozone countries. The institutional design of the ECB reveals come features and functions of the central bank. However, in literature, there had been many criticisms about the design of the ECB, particularly at the time the Euro area financial crisis erupted. In making explanations on the objectives and institutional design of the ECB, it is necessary to clearly differentiate between the two post-war models of central banking (the Anglo-French Model and the German Model) as expressed in the Table 3 below:

[21] At the EU level, its members (or the EU itself) are not permitted to assume public sector commitment of a member country; although, a facility for assistance in time of balance of payment crisis are available outside the Eurozone, but at the EU.
[22] Gros (2012) revealed the noticeable gap between the uncontrollable default in the Eurozone crisis era and the partial default (attributed to inflation) during the EMS crisis period when countries participating in EMS then had their monetary policy independence and respective currencies and could devalue their currency for the avoidance of the tension in the financial market.
[23] As observed by Riet (2013), though the euro successfully maintained price stability, at the EMU level, 'complacent national policy making, accumulated national supervision of financial industry and the absence of macro-prudential tools to counter a credit-driven boom in overheating economies' of the Eurozone all came together to undermine the achieved price stability.

Table 3: The Post-war Models of Central Banking

	Anglo-French Model	*German Model*
Objectives	The central bank works towards achieving many equally-weighted policy objectives.	The primary objective of the central bank is price stability (though, other objectives could be pursued on the condition that these other objectives do not work against price stability.
Design	The central bank has political dependent in which the implementation of monetary policy decisions are subject to the approval of the government. Government minister (of Finance) takes decisions on increasing or lowering interest rates.	The central bank has political independence (as 'the guiding principle'). Without government/political interference, the central bank takes decisions on interest rate. However, there is ambiguity on who (government or central bank) has the responsibility for exchange rate policy decisions

Source: De Grauwe (2014)

As at the point of deliberating the Maastricht Treaty and the establishment of the ECB, the choice between the two models of central banking had to be made. The decision guiding the design of the EMU pushed the Anglo-French model aside and embraced to the German model. These were entrenched in the statute of the ECB and the Maastricht Treaty. Consequently, price stability maintenance was the primary objective of the ECB, though, the ECB was empowered to pursue other secondary objectives (as the need arises), with a condition that these secondary objectives should not interfere with the price stability (primary) objective.[24] The Maastricht Treaty makes the position on political independence a necessity towards achieving price stability objectives clear as it states that the ECB and members of its decision making bodies shall not take instructions from government of any member-state community, institutions and bodies (or any other bodies) in the discharge of its duties.[25] In his arguments, De Grauwe wondered why the German model of central banking prevailed despite the fact that as at the time of Maastricht Treaty negotiation, the Anglo-French model prevailed in almost all the EU member states. Two reasons were however, identified for the rejection of the Anglo-French model in favour of the German model: (i) intellectual development (monetarists counter revolution) and (ii) Germany's strategic position in the formation of EMU (De Grauwe, 2014). There was the conclusion that the ECB is regarded as a 'conservative

[24] Article 105 of the Maastricht Treaty
[25] Article 107 of the Maastricht Treaty

central banker' because of the great weight attached to price stability as against less emphasis placed on output and employment stabilisation.[26]

Despite ECB's primary and secondary objectives and its political interference ring-fencing, the level of accountability of the ECB, by arrangement is low because of the lack of mechanism that would check if ECB is achieving its objectives (or not) and in applying sanction when and if it failed to fulfil its mandate. As rightly observed in literature, the ECB has more independence than other major central banks but by design, this was coupled with weaker degree of accountability; and this however goes against the theory that a central bank's accountability should increase according to its degree of independence. For two identified reasons, ECB has been weak in accountability due to : (a) the lack strong political institutions in Europe that could exert control over ECB's performance; (b) the vagueness of the Maastricht Treaty in defining other objectives of the ECB (apart from price stability), thus causing ECB to restrict its area of responsibility to inflation moderation thereby making it to be accountable only for its anti-inflationary performance.

It is important to state here that the institutional framework of the Eurozone centres on the Eurosystem comprising of the ECB and national central banks (NCBs) of all the Eurozone countries. The Eurosystem is entrusted with the powers to make monetary policy for the EMU.[27] Monetary policy decisions made by the Governing Council (made up of the ECB Executive Board and the Governor of the NGCs) are implemented by the ECB Executive Board that also gives instructions to the NCBs. An issue of concern here is that the ECB, just being a part of the Eurosystem, cannot take its own monetary policy decisions for Eurozone. There is a problem of high degree of decentralisation of the Eurosystem in which the NCB governors have clear majority (of 18 out of the total 24 members) in decision making within the Governing Council.[28] This consequently implies that the representations of regional interests are in the majority.[29]

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[26] Coming from series of analyses, De Grauwe (2014) concludes that the ECB is comparatively more conservative than the US Federal Reserve as ECB seems to apply greater importance to price stability, but more cautious in its reactions to business cycle movements than the US Federal Reserve.

[27] Currently, there are 18 national central banks in Eurosystem.

[28] The ECB Executive Board requires actions in unity for its decision to prevail.

[29] This is contrary to what obtain in some known decentralised central banks like the US Federal Reserve System's Open Market Committee. However, an argument put forward by Friedman and Schwartz (1963) was that the Federal Reserve System was indecisive in taking decision towards averting the 1930 banking crisis due to the fact that there was no system-wide interest strong enough to counter the divergent regional interest, as the system was 'torn apart by opposing regional interests'.

One further area of flaw in the design of the ECB is the absence of the powers of a 'lender of last resort', a deficiency that was grossly exposed by the financial crisis. Contrary to what was in place before the commencement of the single currency, Eurozone's member countries (taking effect from their adoption of the euro) ceased to have 'a lender of last resort' powers which were earlier, within the functions of the respective national central banks. The euro became the 'national currency of all Eurozone member countries, but what the Eurozone has is a 'national currency' without a traditional central bank that should perform the traditional central banking within the zone. When the euro crisis came, existing mandate of the ECB did not accord it with the position to give guarantee in favour of the redemption of government debts that matured, thereby causing loss of investors' confidence, upward movements in interest rates and further financial problems and recession.

Another aspect of the ECB architectural flaw is the lack of supervisory powers over the banking sectors with the zone. The monetary system of the Eurozone was designed in a way in which the responsibility for the supervision of banking was in the hands of the Eurozone's member states while monetary policy was entrusted to the ECB. This peculiar way of banking supervision is problematic and inefficient. It appears conflicting. In recent years, there had been tremendous growth in the internationalisation of the banking system and this coupled with financial innovations, have caused banks to evade supervision and regulation.[30] If in a monetary union, a central bank formulates and conducts monetary policy for a monetary union, and also serves as 'lender of last resort' providing liquidity during crisis, it therefore necessary to have a complementary centralised banking supervisory and regulatory institution/mechanism at the union-wide level. The 2008 Eurozone financial crisis obviously established the strong need to centralise banking supervision and regulation within the monetary zone.

Tables 4 to 6 below offer summaries and explanations on problems and flaws revealed by the financial crisis, of the design of Eurozone.

[30] De Grauwe (2014)

Table 4: Pre-Crisis Problems and Flaws Manifested by the Eurozone Financial Crisis

	Problem/Flaw	***Explanations and Narration***
1	Failure of the Stability and Growth Pact (SGP)	*SPG is the monetary union's cornerstone of fiscal prudence. *As at six year after the introduction of the euro (but before the euro crisis), between 2001 and 2006, one-third of Eurozone's member countries violated the two fiscal criteria of the SGP – (i) 3% budget deficit ratio and (ii) 60% public debt ratio. *This violation, leading to high public debt, reduced trusts in the effectiveness of rule-based surveillance.
2	Disregard of private sector vulnerabilities	*The sole emphasis on fiscal issues during the pre-crisis era led to the neglect of the need to be conscious of the behaviour of private sectors and the watch for vulnerabilities. *Consequently, there were unsustainable credit and housing booms in some countries (Ireland, Spain) as well as structural imbalances (high current account deficits).
3	Absence of effective tolls to foster structural adjustments	*There was lack of proper mechanism to propel microeconomic and macroeconomic structural adjustments within the monetary union. *Greece, Italy, Spain, Portugal demonstrated this lack. *Appropriate microeconomic adjustments should have been in the area of regulations and policies affecting businesses, market flexibility, banking etc. *Examples of appropriate macroeconomic adjustments tools are price and wages, external balances, aggregate changes in productivity.
4.	Absence of mechanism for crisis resolution	Sovereign debt crises within the Eurozone evolved as a surprise, causing policy makers of the currency area to improvise. *Though, there was post-crisis creation of financing mechanism (like the European Financial Stability Facility (EFSF) and the European Financial Stability Mechanism (EFSM) which both provided €500 billion). Such medium-term crisis resolution financing would have preferably been in a design in which the monetary union member state would not need to lend money to each other. *Banking union and centralised fiscal capacity would have been better appropriate.

Source: Author's compilation.

Table 5: Post-Crisis Problems and Flaws Manifested by the Eurozone Financial Crisis

	Problem/Flaw	***Explanations and Narration***
1	Interdependence of banks and sovereigns	*It is evident that there was 'poisonous correlation' between banking and sovereign debt crises due to the national bank resolution regimes and the home country bias in bank's government bond holdings. Whenever a Eurozone member banking system falls into problem, the government of such country follow suit (as Ireland) and verse versa (as Greece). *Most Eurozone countries showed large size of their bank's portfolio of domestic government bond larger than what obtained in the US (Meller and Pisani-Ferry. 2012) *A banking union would solve the problem.
2	Interdependence of countries	*There was stronger interdependence of countries than what was generally perceived before the crisis. *Defaults by governments and private sectors in a small member country can lead to 'contagion' as a larger country's default could result in 'melt down'. A bankrupt Italy, for instance, would lead to a bankrupt Germany banking which would meltdown other banking systems within the union, with an accompanying disruptive effect outside the monetary union.

3	Absence of lender of last resort	*This indicates that governments of the monetary union's member states borrow as if they borrow in foreign currencies when there is, in principle, a prohibition of monetary financing within the monetary union. *When the level of debt is low, such lack of a lender of last resort may not be a problem.
4.	Lack of union-wide integrated fiscal policy	*There is no institution responsible for the management of the monetary union's fiscal stance. *Member countries implements fiscal policies that are deemed appropriate for their individual economies. *The aggregate of these decentralised fiscal policies would not result in a fiscal policy that is optimal for the monetary union as a whole. Darvas (2012) got evidence to show that while the aggregate fiscal position of the Eurozone is much better than that of the US in a study that covers a period between 1990 and 2017 projections, and that while the economic outlook is much more fragile in the euro area, there is the incidence of much stronger consolidation bias in the euro area as a whole than in the US.
5	Downward spiral and negative feedback between the crisis and growth	*In the Southern Europe adjusting countries where fiscal accounts are hard-pressed, there is 'downward spiral'. *Fiscal adjustments in each of these countries lead to weaker economy which reduces public revenues and create further fiscal adjustment needs. *The negative feedback loop between the crisis and growth in the economically strong Eurozone countries is pronounced. * An economic automatic stabilisation tool is needed as solution in this respect – just like the employment insurance in the US.
6	Executive and democratic deficit	*The crisis reveals governance problems (apart from sovereign debt, growth and banking issues). *European policymakers' responses were inadequate, partial and belated, consequently undermining credibility to resolve crises. *There was lack of decisive decision making processes that would have prevented the problem that surfaced. *Agreements on comprehensive solutions to issues and problems are technically and politically out of reach.

Source: Author's compilation.

Table 6: Crisis-Revealed Problems of Eurozone's Financial System

	Problem	***Effects***	***What would have prevented the occurrence of the problems***
1	Cross-border financial intermediation (caused hugely by debt-based wholesale banking market integration	*Vulnerability of member countries to shocks increased. *Caused sudden-stop problem.	Comprehensive equity market integration. (This would have absorbed shocks confronted by the monetary union.
2	High level of risk exposure (relative to loss absorbing capital) and debt within the banking system in the currency area.	*Demand for bail-outs as well as many needs for public financial assistance increased.	*Prudential guidelines. *Lender of last resort.
3	The contrast between the 'pre-crisis high degree of wholesale banking market integration and the absence of a system for the stability of the financial system.	*The resolution of problems faced by the banks was delayed. *The economy of the entire monetary union was slowed down	Banking union with three pillars: (i) a single supervisory mechanism; (ii) a single resolution mechanism; (iii) a common system of deposit insurance.

Source: Author's compilation.

4.2 Pre-Crisis Eurozone Governance and the Inherent Incoherence

Before the 2007/2008 global financial crisis manifested, the structure of Euro area governance was believed not to be insufficient. The financial crisis could apparently reveal the three principal parties involved in the crisis as banks, national governments and the common central bank. The awkward structure of governance (reflecting the relationships among the common central bank (ECB), banks and national governments) was the root cause of the vulnerability of Eurozone to sovereign debt crisis. A key error of omission in the Maastricht Treaty was the failure to consider banking issues. This is further to the failure to establish coherent relationships among banks, governments and the common central bank (the ECB).

Table 7: Governance Relationship Flaws exposed by the Eurozone crisis

	Relationship Flaws	Features
1	Government to government	In the Maastricht Treaty: *There was a provision with 'no bail out' clause. *This clause indicates that member governments in the Eurozone could not be requested to bail out a member government that is in trouble.
2	Common central bank (ECB) to government	In the Maastricht Treaty: *There was a provision with 'no monetary finance' clause. *This clause stated that the common central bank, (ECB) would not make credit available to member government; *This implies no 'lender of last resort' by the common central bank in favour of the member government.

Source: Author and Carlin and Soskice (2015)

Table 8: Comparative Pre-crisis Governance in the US and the Eurozone

	Governance factors	***The USA***	***The Eurozone***
1	(i)Common shock; (ii) Financial stability; and (iii) Lender of last resort	(i) Federal Reserve stabilises common shocks. (ii) Federal Reserve has the responsibility for financial stability (iii)The Federal Reserve serves as the lender of last resort to the Federal government and to the banking system,	(i) ECB stabilised common shocks (in reaction to the crisis). (ii) The ECB was not responsible for financial stability. (iii) The ECB was not the lender of last resort to member (national) governments. (iv) ECB served as the lender of last resort to the banking system, though this was not entrenched (explicitly) in the Maastricht Treaty.
2	Budgetary provision for stabilisation in times of asymmetric shocks	*The federal budget provides stabilisation to the states whenever they encounter asymmetric shocks (for instance, through contributions to unemployment benefits and federal taxes).	*There was no central (federal) government. *There was no stabilisation through European budget; because there was no European budget.

3	Budget rules	*The states have balanced budget rules.	*Member nations had no national fiscal autonomy which is subject to rule.
4	Bank failure and government responsibility	*States are not responsible for the failure of banks headquartered in their respective states. This is the responsibility of the federal regulators and the federal government	*Member countries are responsible for the failure of banks headquartered in their respective countries. This is nether the responsibility of the Eurozone, federal regulators or a non-existing Eurozone government.
5	Bail-out	*The federal government does not bail-out delinquent states which are however allowed to default.	*A ‘no bail-out’ clause was explicitly entrenched in the Maastricht Treaty which provides that member government would not be bailed out in times of crisis.

Source: Author and Carlin and Soskice (2015)

These are relationships that would have been robust enough to face such financial crisis. Table 7 above apparently reflects the central elements of what was lacking in the bank-government-common central bank relationships in Eurozone before the crisis. In order to drive home the understanding of Eurozone’s governance problems, it is useful to distinguish between the pre-crisis governance structures in a one-state monetary union (the US as a good illustration) and a multi-nation monetary union (like the Eurozone). Table 8 above displays these comparisons.

5. Further Review of Literature and Conclusions by Authors

There were many other literature on the design flaws of the EMU, the Eurozone crisis and the implications of these for the sustainability of the monetary union. Some of these are highlighted in this section.

5.1 Dashed Hopes

There were research evidences as produced by Schwarts, (2013) to conclude that there was failure in realising the great hopes surrounding the euro as a currency intended (at its inception) to be as strong as the deutschemark; and that the hopes for the euro to serve as European’s unity symbol were dazed by the financial crisis which has created discords among the European Union members, thus indicating defective design of the euro. Originally, the euro was intended to be fashioned as 'a kind of gold standard for a system of fiduciary money', but with the escape clauses to make it less automatic, given the impossibility of devaluation (as under the gold standard) as the main building condition for the Eurozone member countries (Schwarts, 2013). Nevertheless, rather than being gold, the anchor was expected to be an issue rule that the ECB could manage the single currency in non-rigid manner, implying the limitation to money creation in order to keep the purchasing power of euro stable over the years. The interpretation given to the rule by the ECB is that in the long term, the Harmonised Consumer Price Index (HCPI) should be moderated within the prescribed targets. This rule, however, led to excessive low interest rates during the financial crisis, with its accompanied explosive effects. Due to the boom, there were intention to delay the imposition of discipline imposed on the euro members because of the possibility of almost indefinite financing of balance of payment deficits through the ECB's clearing system; and consequently, the ECB practically 'stayed too far away from the automaticity of an anchored monetary system' (Schwarts, 2013). One further design issue is that the euro was based on the idea of high degree of neutrality of money in Europe, thus giving room for the euro to be able to adapt to changing circumstances through relative price movements and not by means of monetary management. As the head of the Eurosystem, the ECB was conferred with the single mandate of maintaining price stability by the 2008 Treaty on the functioning of the European Union. These prompted the conclusion that the parlous situation of euro indicates that at its conception, the currency suffered from fundamental defects and that these design flaws were capitalised upon by the Eurozone members to finance unsustainable fiscal policy (Schwarts, 2013).

5.2 Possible Dangers for the Eurozone

Gathering conclusions from economic research papers and books before and after the commencement of the euro, De la Dehesa (2012) highlighted main dangers that could be faced by the euro as a monetary union: (i) because capital and labour do not move freely among Eurozone member countries; and that prices and wages are not flexible within the Eurozone as they manifest in Canada and the United States, Eurozone is by implications, not an OCA. In fact, there were general awareness in 1999 that Eurozone members did not fulfil the conditions for a monetary union; (ii) consequent from (i) above, if Eurozone is not an OCA, a 'one-size-fits-all' monetary policy can be too tight for the matured Eurozone members witnessing slow growing internal demand coupled with lower inflation rate, such policy can therefore be too loose for the 'catching-up' and fast growing Eurozone members that display higher than average inflation rate; (iii) given the Eurozone's evident production specialisation, some member countries can suffer asymmetric shock that does not affect other member because of the build-up of growing internal and external imbalances and exogenous shocks; (iv) there may be a mix of negative and positive asymmetric shocks in Eurozone's member countries as a result of the 'agglomeration' of different productive sectors in some special areas within the euro area. This would be as a result of internal and external economies of scale produced by the combination of a common and free internal market and the single currency, the euro. De Grauwe (2012) got evidence to show that members of the Eurozone experienced asymmetric shocks displaying a clear divide among the northern and southern Eurozone countries; (v) there is the possibility for Eurozone member nations to have incentive to adopt huge fiscal deficits/public debts and therefore 'free ride on other members' of the monetary zone which eventually finance them, provided exchange rates risks are not incurred;[31](vi) in the Eurozone, there would be asymmetric shocks that could be avoided (or its effects reduced) if a single or common fiscal policy is in place either through a large common treasury or a common budget of a large European fund with the purpose of helping affected members. This is one of the essentials for a single currency. The point here is that the whole of Europe lacks fiscal integration; (vii) if a monetary union as depicted by the Eurozone is to increase, this cannot be made possible without a high-flying fiscal union. Eventually, such fiscal union is expected to lead a political union manifested by a common parliament and executive powers or a confederation of states.

5.3 Overly Optimisms of the Eurozone's Founding Fathers

Gibson, Palives and Tavlas (2013), while presenting an analytical overview of the euro area crisis, highlighted three reasons for the optimism of European political leaders and economists on the success of a monetary union (like the euro area) even despite the presence of asymmetry shocks and the absence adequate adjustment mechanism. These reasons were: (a) if at the national levels, sound fiscal policies are maintained, the incidence (and the resultant effects) of fiscal-induced asymmetric would be minimised (Krugman, 2012); (b) towards reducing the impacts of symmetric shocks, national policy makers would apply structural reforms (given the reduced ability to use the demand side policies to counter asymmetric shocks) which may include the freeing of labour and products markets; (c) it would be easier to evaluate the nature of risks and consequently appraise investment opportunities within the euro area due to the belief that the euro would eliminate exchange rate risks from national interest rates.[32] The Eurozone crisis

[31]This opens the flaws of a single fiscal authority in Eurozone as necessitated by the need fiscal discipline on all Eurozone members.
[32]Fernadez-Villaverde, Garciano and Santos (2013).

revealed that there was overly optimism about the success of the euro because of the high hopes of the application of necessary fiscal and structural measures of euro's success by the Eurozone members. The underpinnings of the theory of monetary integration as put forward at the end the 1990s were therefore, incomplete in the EMU.

5.4 Principal Factors of the Eurozone's Financial System Failure

Coming from the novel explanations of the Eurozone crisis in relation to the augmented logic of the Mundell-Fleming Policy Trilema', Dymski (2013) raised some points on factors neglected by the design of the monetary zone stating that regarding the Mundell-Fleming trilema, the Eurozone neglected the Fleming's Keynesian modeling but took after Mundell's approach. This means that the Eurozone emphasised pre-determined rules guiding the behaviour of government and a 'wide flow of market forces, disciplined by financial flows', while identifying the second flaw in this respect as the failure of the Eurozone to pay attention to the growing powers of the globalised finance. Stemming from these is bank regulation/bank behaviour trilemma which reveals the consequences of the economic architecture of the Eurozone precluding 'adequate bank and financial market supervision' and prohibiting the 'lender-of-last-resort intervention' despite simultaneously enabling 'hyper-competition among financial intermediaries'. These are some of the principal factors that led the Eurozone's financial system into crisis as the configuration of the Eurozone is such that could not calm the financial sectors of the euro area down and while burdened by problematic banking sectors, financial stability could not be ensured. Though there were global financial deregulation and revolution in macroeconomic theory and policy making as at the time of designing the Eurozone, Feldstein (1997) observed that out of the Mudell's four criteria for an OCA, the Eurozone met just one (which is labour mobility) and failed the other three tests.[33]

5.5 Non-convergence of the Booms and the Busts at the Union Level

De Grauwe (2013) restated his 1999 comparison of the Eurozone as 'a beautiful villa in which Europeans were ready to enter; yet, it was a villa that did not have a roof. As long as the weather was fine, we would like to have settled in the villa. We would regret it when the weather turned ugly.' He added that the Eurozone's design failures have 'become even more manifest as the ones that were perceived before the start'. It was

[33] These three areas of failures manifested in: (i) inflexible domestic prices and wages; (ii) minimal fiscal transfers across Eurozone member countries' borders; and (iii) heterogeneity in shocks , in which shocks do not have similar effects.

further highlighted that 'the Eurozone look like a wonderful construction at the time it was built, yet it appeared to be loaded with design failures.' The origin of the design failure was traced to two factors: (i) booms and bust dynamics; and (ii) lack of stabilisers. The first argument was that the endogenous dynamics of booms and busts continued to work at the national levels and that these were not incorporated into the union-wide dynamics. While money and monetary policies in the Eurozone are fully centralised, other macroeconomic policies are left firmly in the hands of the national governments, thus causing 'idiosyncratic movements' which the existence of euro could not constrain. Consequently, the Eurozone has very little to make the booms and the busts converge at the Eurozone's level. These booms and busts have the origins of their own lives at the national levels and could not become a 'common boom-and-bust dynamics' at the monetary union's level. The worse scenario highlighted by De Grawe (2013) was how Eurozone level booms and busts can be affected at the national levels given the fact that the union's single interest imposed on all Eurozone's members by the ECB is 'too low for the booming countries and too high for the countries in recession'. In the booming countries, the union-wide single interest rate translates to low real interest rate, in effect magnifying the boom. On the other hand, the single interest rate yield high real interest rates in countries with recession/low growth, thereby causing further economic devastation. The fact is that single interest rate exacerbates the feasible difference between 'the booming' and 'the busting', making the booming countries to be further boomed while the busting countries moves further into recession than when the monetary union was not in existence. The second argument was that the stabiliser that existed at the national levels before the beginning of the monetary union was stripped away from the Eurozone members 'without being transposed at the monetary union level'. The lender-of-last-resort function of central banks is the fundamental stabilising force existing at the national levels at the start of the Eurozone. What came suddenly, by the implication was that Eurozone's member countries had to issue debt in euro on which they no longer have control. National governments, thereafter, were unable to guarantee the availability of cash to roll its debts over.[34]This made the Eurozone member states to be 'naked' and 'fragile' and unable to deal with coming national disturbance (De Grauwe, 2013). What the architects of the Eurozone could not understand in the design was that

[34] This was possible before the start of the Eurozone when member states were issuing debts in their national home currencies and were able to guarantee the availability of cash to repay debt at maturities.

the lack of guarantee could trigger self-fulfilling liquidity crises caused by a 'sudden stop' which could plunge member countries further into solvency problem.[35]Apart from liquidity problems turning into solvency crisis, affected Eurozone members were forced to switch off the automatic stabiliser in the budget, scramble for cash, go into austerity, hence cutting expenditure and raising taxes and revenue.[36]

5.6 The Euro, not perceived a symbol of a Common European Identity

Colombatto (2000) opines that 'in sharp contrast with historical precedents, the euro was not perceived a symbol of a common European identity, either at the beginning of the 1990s or back in the 1960s when the project for a Europe common currency was first conceived'. This was based on the premise in the contributions of Cohen (1993) and Bordo and Jonung (1999) as these literatures are able to show that political unification preceded all past monetary unions that later adopted common currency; but contrary in the case of the Eurozone, the justification for monetary union was provided by the idea of political union. The collapse of the Bretton Woods System as well as the collapse of the US dollars gave the support for a European common currency in the 1960s as these eventually caused the establishment of the European Monetary System (EMS) and the European Currency Unit (ECU). The contrast picture of the support for the Eurozone in the 1990s painted by Feldstein, (as cited by Colombatto, 2000) emanated from the 'desire to replace discredited national policy makers with foreign, allegedly independent technocrats or from the Franco-German desire to establish political hegemony'.

5.7 Euro is Illegitimate

In this same light, further conclusion made by Colombatto (2000) was that the euro lacks the legitimacy.[37]It was claimed that the euro has scanty legitimacy because the European political ideal itself lacks legitimacy. The proposal for the euro (and Eurozone) was seen to tend to be 'assimilated to a matter of monetary coordination, a concept with long tradition and little effectiveness in the European debate'. From the viewpoints of European public, the common currency was regarded as something vague, which is temporarily remote, thus causing the gradual neglect of the implication of the euro for centralised policy making.[38] Many literature affirm that the idea of the EMU became

[35]Ireland, Spain and Portugal experienced this.
[36] De Grauwe (2013)
[37] De Jasay (1995) considered an institutional arrangement to be legitimate if it is accepted in the absence of incentives or sanctions.
[38] (Colombatto, 2000).

political when the 'questionable legitimacy' of the euro became obvious just as some European countries (like the UK, Scandinavia) perceived the euro as a political phenomenon from the beginning. The claim by Colombatto (2000) was that the principle of harmonisation and the introduction of the euro are not independent in the context of the EU where the single currency ceased to be mere monetary technicality which only became political matter for the sake of harmonisation. In this context, the principle of harmonisation relates to the manifestation of two properties of the OCA: (i) harmonisation in the context of bringing about homogeneities in production structures and in institutional conditions which make asymmetric shocks less disruptive; (ii) harmonisation in situation where substantial transfer from one group of member nation to another would compensate and smooth out potential divergences with the currency area. Obradovic (1996) explained that most European countries have different traditions and history, value systems, institutions and myths; and that across countries in Europe, huge variance between the 'actual condition' and the 'rule of law ideal' caused the proliferation of different systems of informal rules and consequently, different culture (particularly, in the Western Europe). The elimination of these differences would take time and highly possible to be catastrophic. Attempts to force institutional homogeneity in the Eurozone through the introduction of new and common system of codified rules that ignore local traditions and cultures in Europe would result in tension and crisis within Eurozone.[39] One further source of ambiguity in the establishment of the Eurozone and the introduction of the euro was the heterogenous perception (within Europe) of the political consequences of the EMU. A group of countries (within the EU) aimed at achieving 'continental supremacy and world status through political integration.[40]The other group of countries (within the EU) gave support to the EMU project with the view of EMU as 'a means of protecting and covering their allegedly incompetent (national) political elites (Italy); and also that monetary integration is protective devise to avoid catastrophic (or less desirable) scenarios'.[41]

[39] (Colombatto, 2000)

[40] Once the euro area integrated into a new federal organisation, these countries hope to emerge as much stronger contenders in the international community. Their leaders would have enhanced their own prestige and authority in the domains of ordinary policy making and law bargaining as well as their importance in historical perspective, being the founding fathers of a new political entity with a crucial role in the world(Colombatto, 2000)

[41] Greece, Ireland, Spain and Portugal would have certainly considered the cost of staying out of the Eurozone as greater that the cost of staying within.

6 Eurozone Crisis Lesson for Proposed Monetary Integration of Africa

It is important to note that the OCA theory was (as of then) developed by Mundell, McKinnon and Kenen to describe all that were required for the smooth operation of a monetary union within blocs that were already existing as federations (the US and Canada). The theory did not mention anything about the necessary pre-requisites and other factors (now exposed by the Eurozone crisis); some of which are: (i) political requisite necessary for proposed monetary unions. Apart from this, the theory (as well as its subsequent developments), was silent on the need for a banking union to be incorporated in a monetary union; and also failed to see banks (or banking) propagating asymmetries of shocks. The reasons adduced to this was the tight regulations and constrained operations of banking when the OCA theory was developed in the 1960's; (ii) selective emigration of highly skilled labour from adverse-shock hit regions of the currency union (which led to serious brain drain in the Eurozone due to the long-lived, deep adverse shock suffered by the EMU periphery since 2010; (iii) the need for a 'lender of last resort' central bank in a monetary union, because the sovereign debt and banking crises of the 1930s were never anticipated; (iv) the necessity for an orderly sovereign debt restructuring mechanism whenever a monetary union member having no recourse to inflation tax, inherited debt overhang. This is because the prototype existing monetary union members within the US (States) and Canada (Provinces) were not characterised by such degree of debts as those experienced by the Eurozone members; (v) The requirement of further political integration for fiscal integration or if the compatibility of limited fiscal integration and limited political integration would be adequate for a monetary union to function effectively.

In spite of the desire for stronger regional cooperation and links and the fact that single currency project cannot be separated from politics, the African regional monetary cooperation project differs in two areas: (a) firstly, because of the low intra-regional trade in African (as evident by studies applying the gravity model), the harmful impact of having various currencies in Africa are not huge; (b) secondly, regional integration in Africa is not advanced as it was as at the launch of the euro (Masson, 2006). In African union as well as the various economic communities in the regions of Africa, there are no parliaments, community institutions and a functioning custom union. Therefore a common central bank may not benefit from the support of community institutions that may justify the creation of monetary unions in Africa. This makes the efforts towards monetary integration of the continent of Africa as those facilitating regional integration in political and other context or dimensions, rather than the culmination of the process.[42] Instead of the benefits of lower transaction costs that monetary integration offers, an African monetary union could be desirably essential in propelling regional integration from four fronts: (i) increasing the African countries' clout (particularly in international trade transactions); (ii) expanding intra-regional trade with the associated economies of scale advantage and benefits of efficiency that could be derived from increase in competition; (iii) contributing to political solidarity as well as in reducing international conflicts within the African continent; (iv) serving as self-control instrument against macroeconomic policies that are not sustainable (for instance, by exerting 'peer pressure' on national government and insulating regional central bank from national treasuries (Masson, 2006).

Given these, what were not anticipated by the OCA theory founding fathers, but now exposed by the Eurozone crisis, offer some crucial and essential lessons for the smooth operations of proposed monetary unions in the Africa as well as the overall African continent's monetary integration project. Regardless of the above conclusions on African monetary integration by Masson (2006), some lessons from the Eurozone crisis would be of immense value for the African monetary integration of Africa. Some these lessons are as expressed in the following paragraphs:

Lesson 1: ***<u>Gradual process of monetary integration transition for Africa:</u>*** Although, the literature have revealed mixed conclusions about monetary cooperation within the sub-regions of Africa, still, the Eurozone crisis has disclosed that monetary integration and fixed exchange rate cooperation is always opened to crisis if countries involves in the arrangement allow imbalances to grow out of hand due to the failure of the affected countries to internally adjust their economies. The competitiveness of a monetary union member country would be by the appreciation of real exchange rate when economic policies find it difficult keeping the competitiveness of the price levels at national domestic levels with the rest of the countries within the monetary union. While external adjustment through exchange rate manipulations are ruled out, current account deficits emanating from this may possibly generate balance of payment crisis. Because of the economic and political divergences of the EMU, macroeconomic imbalances were

[42] Masson (2006)

worsened. The financial crisis in the Eurozone reflected clear over-ambition in monetary and exchange rate integration of Europe in spite of these divergences. This is a lesson for the African monetary integration as the continent (as well as its sub-regions) may suffer the after-effect and possible economic/financial crisis if sub-regional exchange rates (and monetary integration) are not gradually implemented. These require member countries' commitments and political agreements as well as monetary and fiscal (macroeconomic) coordination of member countries of the proposed monetary unions. For the purpose of the economic adjustment mentioned above and 'flexibility', such gradual steps in monetary integration at the African sub-regions are essentially necessary with huge commitments, trusts and the willingness of proposed member countries to cooperate, defend and uphold the agreed exchange rate regime. Nike Theory (the 'just-do-it' theory) and the Coronation Theory (the 'Bundesbank view') are the two schools of thoughts at the pre-Europe monetary unification and which the proponents of the African monetary cooperation should evaluate. All the same, the benefits of hindsight have flawed the former while the latter appeared to have been vindicated.[43]

Lesson 2: <u>Asymmetric shocks are natural, inherent and in-built</u>: The OCA theory regarded the aggregate disturbance pattern (symmetry and asymmetry) as a guiding criterion exogenous in deciding to participate in a monetary union. There are some theoretical underpinnings of the shock pattern across potential monetary union members. Mundell (1961) speculated that the western region of the US and Canada might be a natural monetary union because of their resource endowment similarities and the industrial structures differences between eastern and western regions of North America. There were, however, some exceptions to the exogeneity rule from the EMU's perspective.[44] There would be increase in asymmetric shock (as long as shocks are industry-specific) when member states of a monetary union are more specialised in different industries, due to more inter-industry trade. More intra-industry trade causes the industrial structures within the monetary union to display further overlap that would reduce asymmetric shocks. Another exception that centres on the sourcing of asymmetric

[43] The 'just-do-it' theory (the Nike Theory) points to endogenous economic convergence soon after the completion of monetary integration while the 'Bundesbank view' (the Coronation Theory) is with the argument that the long convergence and political process receive the crowning achievement of a monetary union.
[44] Frankel and Rose (1998) highlight that monetary integration of the Europe could cause changes in industrial structures perceived as the asymmetric shock source.

shocks from different levels of economic development provided a linkage between the shocks and other forms of anxieties within a monetary union.

Within the Eurozone, there are the 'core' and the 'periphery' and the economic development gap between these two categories is wide. This is an identified problem within the Eurozone with some implications for the African 'core' and 'periphery' countries. Walters (1990) opined about the unlikelihood of quick inflation convergence across the EMU as an exception. The 'periphery countries' record higher inflation rate with the consequence of lower interest rates operating across these countries if the uniform nominal interest rates operate across the Eurozone; and this would lead to destabilising asymmetric shock consequences stemming from unsustainable consumption and boom in investment in the periphery countries as witnessed during the Eurozone crisis. There were booms in the periphery countries' construction spending (in Ireland and Spain), consumption spending (in Portugal) and government spending (in Greece) due to reduced costs of borrowing. These spending booms were largely financed by large cross-border capital flows from the Eurozone's 'core' to the 'periphery' causing equally huge current account imbalances (deficits and surpluses for the 'periphery and the 'core' respectively). There was 'sudden stop' of these capital inflows in 2009/2010 due to sustainability problems and this imparted damaging and weakening asymmetric hocks within the Eurozone.

Lesson 3: ***<u>The need for banking union in the proposed monetary union of African diverse countries with proposed common currency:</u>*** The Eurozone crisis has obviously revealed that banking union is required in a monetary union. Such banking union should be expected to encompass single financial rules and regulations, a single banking supervision, a well-funded single resolution mechanism for 'bad' banks and harmonised deposit insurance. These are essential whenever banks are involved in cross-border capital flows, given the destabilising effects of the inadequate supervision and regulation of a cross-border lending policies. In the event of insolvency of banks and the absence of orderly resolution mechanism, bail-out was seen as the only alternative. This promoted moral hazards, caused bank under-capitalisation problem, negatively affected the solvency of national governments that were responsible for bank capitalisation, and increased the spirits of robotic banks and companies. If not well addressed, this problems could lead to decline confidence in banking systems, spilling beyond the specific countries. Unfortunately, this is an issue not addressed by the OCA theory.

The Eurozone as a monetary zone, is deficient of cross-border banking or federal banking unlike in the US monetary zone. The provision of banking services by the cross-border banks or federal banks like Bank of America, Citibank, JP Morgan Chase and Well Fargo enable the US not to be badly hit by the financial crisis which emanated from the country. Funding costs and credit expansion criteria of these banks were determined nationwide (at the monetary union level). These made loan seekers to face uniform sets of credit and financial criteria and conditions in all banks irrespective of the state within the US. The Eurozone is however, a contrasting case in which most of the banking operating and headquartered in individual EMU countries. In the instance of Spain, Spanish banks undertook virtually all the Spanish banking operations, and many of these Spanish banks are not well-exposed (with little banking activities) beyond the shores of Spain. Hence, when the financial crisis came, Spain and the Spanish banking were badly affected, while the government had to come up with salvaging the situation in the absence of alternatives like a banking union. Generally, the Eurozone member countries could not strongly cope with the additional burden without adverse effect on their credit ratings which further caused credit ratings of most banks in the affected countries (like Greece, Ireland, Spain *etc*) to drop. This led to the general economic downturn stemming from stiffer credit terms and conditions as well as interest rate increase with lowered economic activities and government fiscal revenue. Nevertheless, citing the case of the Eurozone's Cyprus, Goodhart (2014) argues that a mechanism to bail-in the local bank creditors would be more attractive than common deposit insurance and common resolution fund incorporated in banking union.[45] The Cypriot case discouraged banks and taxpayers in stronger Eurozone countries (in the north) from supporting the weaker economies (in the south). The effect of the bail-in of the uninsured depositors may cause banks' large depositor to flee to north whenever financial crisis is coming up because the bail-in may imply the imposition of losses on local residents, fortify the doom-loop as well as increase the likelihood of contagion across member states. Germany consequently came up with the view that banking union within a monetary union is better in the long-run, and not in the short-run and further that it should not serve as solution mechanism for adverse downward spiral interaction between national governments, economies and banks

[45] In Cyprus, in recapitalising local Cypriot banks, the major adverse effect fell on uninsured depositors.

(Goodhart, 2014). Therefore, without banking union, African monetary union project may fail.

Lesson 4: ***<u>Instituting banking systemic fragility/instability prevention mechanism:</u>*** At the eventual launch of monetary union (at the continent and sub-continent levels), appropriate mechanism should be put in place to strengthen national financial systems and thus prevent national banks from falling into crisis. One of the measure that are necessary here is the enforcement of capital requirements higher than the capital adequacy requirements prescribed by the Bank for International Settlement (BIS). Apart from this, the levels of bank capitalisation should be regularly monitored and reviewed for long run stability of the banking systems as guide against banking system fragility.[46]

Lesson 5: ***<u>Forestalling fiscal extravagance and associated painful effects</u>*****:** Unchecked public sector spending and fiscal recklessness/complacency (as in the case of the Eurozone's Greece) should be obviated by prospective members of the proposed African monetary unions in order to avoid possible cost of market-imposed fiscal adjustment which may be painful and unbearable. In the Eurozone's, pains from the fiscal adjustments took the form of fiscal austerity measures which precluded affected member countries from offsetting the adverse impact of budget contradictions on economic activities and employment, by applying independent monetary policy and exchange rate policy as implied by membership of the monetary union.

Lesson 6: ***<u>Assessing public finance sustainability at the pre-take-off stage of the African monetary integration project</u>***: The dynamics of public debt in the Eurozone countries, more or less, witnessed stability around 10 pre-crisis years. The standard equations of public debt dynamics indicates that if a country's interest rate on debt is more than the nominal GDP growth, it is necessary for such country to stabilise the debt/GDP ratio by running a sufficiently large primary budget surplus. This is a condition lacking in the case of Greece, Ireland, Portugal and Spain in the wake of the financial crisis when public debts in these countries increased.

Lesson 7: ***<u>An unsustainable debt restructuring mechanism is essential for the African monetary union project</u>*****:** Automatic fiscal stabilisers can stabilise the heavily indebted countries within a monetary union if there are mechanisms for removing debt overhangs. The case of Greece in the Eurozone erupted the generalisation that heavy indebtedness

[46] The 2%-3% bank equity/total (non-risky-weighted) asset recommended for banks with East Asian banks by Admati and Hellwig (2013) is equally advisable for banks within the proposed African monetary unions.

is a significant obstacle to the use of automatic fiscal stabilisers around the subsequent application of market-based sovereign debt exchanges within the monetary union as basis for higher degree of stability. Because of the great scope for contagion, member countries of the Eurozone have fewer alternative means or mechanism for handling the debt crises within the union, apart from the bail-out brought about by the European Stability Mechanism (ESM).[47]

***Lesson 8: <u>Envisaging possible sovereign government-banking system loop at the pre-take-off stage of the African monetary cooperation project</u>*:** There is a strong link between the sovereign and banks in the Eurozone. This was not taken into cognisance in the pre-crisis period. This is a feature of weakness that should not be ignored by member countries of the African monetary unions at all levels. Within the Eurozone, with the absence of a unified and integrated banking resolution institution and framework at the union's level, it is the responsibility of each member government to rescue its domestic banking system from collapse. A major consequence in countries with large banking system was the risks inherent in such banking system rescue, particularly increased and apparent huge public finance deterioration for the rescuing governments in the form of banking recapitalisation and rescue packaging costs.

Lesson 9: <u>Avoidance of the design of problematic financial systems</u>: African financial markets are broadly bank-based. Even in the face of weak and badly structured financial systems (grossly lacking the existence of capital markets), African monetary unions should avoid instituting awkward and problematic financial structures at the sub-regions and the regional level of monetary cooperation. This is to avoid replica of hurting effects of the faulty designs of the Eurozone's financial system that are apparent in the contradictions in the homogeneous interbank market which happened to be characterised by dissimilar heterogeneous banking markets.

Lesson 10: <u>Enhanced surveillance and monitoring of regional financial markets:</u> There is every possibility of financial crisis spreading like wild fire among the integrated economies within a monetary union through financial or trade channels or a combination

[47] It is a mechanism that should immunise sovereign from legal actions by holdouts in situations of approved debt restructuring. Debt restructuring should be set as a pre-condition when assessing lending under the mechanism in case sovereign debts go beyond the pre-agreed limit.

of the two. This therefore justifies the institution of high-powered management of capital flows risks. Since no country within an integrated region can detach itself from financial troubles and risks apparent in the regional environment (due to the lack high degree of interdependences), prevention and management of financial crisis (within the contexts of regional crisis management) and crisis management strategies would prevent financial crisis occurrence at the monetary regional levels as well as take care of the volatilities international capital flows. This serves as complement to other related global initiatives. A major lesson here is for the members of the proposed African monetary unions at the sub-regional levels (and finally at the continental level) to work towards enhancing the monetary union's design/architecture, further to the enhancement of regulatory capacities at national levels as well as financial cooperation at the international level. It is therefore essential for the regulatory focus to go beyond micro-prudential regulation and supervision of individual financial institutions and work in favour of the identification and management of inter-linkage and market-interdependent system risks. For the proposed African monetary union, this would prevent crisis-activating events like large financial institution failure from impairing national financial markets and the intending member's economies at large.

Lesson 11: <u>A normal central bank is desirable for the African monetary union project</u>: The common bank for a monetary union should go beyond just following monetary rules (inflation targeting, Taylor rule, money supply growth etc); but should be conscious of performing the role of lender of last resort, stabilising the union's payment system and banking system supervision. The ECB has narrow scope and focus by operating less than a normal central bank. This does not have good implications for the future of a single currency and the economies of such monetary union. In line with the degree of independence, the extent of accountability of proposed African common central banks should be made strong. A strong political institution should be established to exert control over such common central banks.

Lesson 12: <u>The necessity for crisis prevention and crisis resolution mechanisms</u>: The inferences from the Eurozone crisis as well as the Asian financial crisis pointed to the view that it is difficult to establish and coordinate crisis resolution mechanism in the middle of stormy economic and financial crisis. It is evident that the two monetary integrated region were totally unprepared to face the crisis and the after-effects thereof, thus pushing this huge tasks to the multilateral monetary and financial organisations at global and continental levels.[48] Because of the contagious adverse nature of financial and banking crisis and the vulnerabilities to external shocks, it is important that effective and well-functioning crisis resolution mechanism are established at the formation stages of the African monetary union in the direction of ensuring sufficient preparations for preventing financial crisis, providing prompt/swift response to crisis as well as the avoidance of unnecessary frictions during the crisis.[49]

Lesson 13: ***<u>Proper evaluation of the costs/benefits of international financial integration within the African monetary integration plans:</u>*** The neo-classical theoretical prediction of automatic capital allocation efficiency as a propeller of international financial integration was proved wrong by the Eurozone crisis. Efficient allocation of capital as expected by the Europe's Stability and Growth Pact (SGP) was not assured/guaranteed, rather unsustainable financial imbalances and bubbles were developed out of the Eurozone's unrestricted financial integration. There was under-pricing of sovereign risks in the Europe, followed by very poor debt repayment abilities of sovereign debts while much needed funds were nowhere thus leading to forced, painful overdue adjustments.[50] These were equally experienced by some developing and emerging economies in which the 'halt', 'sudden stop' and capital flows reversals are the repercussive 'capital flow bonanzas' that stemmed from the period of strong unsustainable output growth. Reinhart and Reinhart (2009) established that this development is incessant in international finance modern era. Therefore the Eurozone experience should prompt the African monetary union initiatives to properly evaluate the costs and benefits of international financial integration within the context of proposed monetary integration of the continent in the consideration of the capital account management and international flow regulation in the determination of long term benefits and costs. Cross border activities of banks and financial institutions escalated systematic risks within a monetary union and challenges in the area of regulations. Therefore, working towards monetary and financial integration and single markets at the African sub-regional levels, high degree of care is necessary in taking too fast financial market liberalisations both at the continental and sub-continental levels.

[48] The attempt to set up a functioning Asian Monetary Fund (AMF) failed.
[49] Volz (2013).
[50] Volz (2013).

The low level of developments in the African financial markets (particularly, the capital markets) is a point of concern at this point. Nevertheless, sound evaluation of the African monetary integration should answer the question pertaining to the extent of the integration of the financial market sectors which are beneficial in monetary integration process, having in mind the risk contagion effects of increases in international finance (as evident by the case of Greece within the Eurozone). As part of the lessons from the Eurozone crisis, proposed developments of monetary integration of the African sub-regions necessitate excellent financial architecture that would put regional cross-border financial regulatory and supervisory bodies (within a structure of supranational regulation) in place in order to guide cross-border financial flows, financial services restrictions and the liberalisation of financial regulations at the domestic national levels.

Lesson 14: ***<u>Need to have the consciousness of Africa's political and socio-cultural differences</u>*****:** Unlike the successful monetary integration in the US, the Eurozone is made up of members' countries having separate and different systems of government, separate law making machinery (parliament), independent and government, different culture and social beliefs. In working in favour of their sustainability and independence, it is therefore necessary for the proposed African monetary unions to address fiscal dominance at national levels in which politicians would frown at economic policy reforms and bank dominance in which banks might not be bothered about banking operation calamities, but rather about enhanced return on equity.

Lesson 15: ***<u>Need to establish strong direct link and relationship between inflation target and fiscal targets</u>:*** The future African monetary union should evolve a design that would not make price stability targets to be an obsession with fiscal targets. The architecture of African monetary unions should hugely focus on price stability and inflation target through the design that would prompt the avoidance of inflation differentials among prospective members in the monetary integration and enforce adherence to long term inflation targets and fiscal targets. The size of budget balance (deficits) and public debt should be made to affect inflationary performances of the prospective members.

7. Conclusions

In this paper, the history of monetary integration of the Europe was traced and the establishment of European Monetary Union (EMU) was evaluated within the context of the properties optimal currency area theory. Defects in the architectural design of the Eurozone as exposed by the financial crisis were identified and lessons were drawn from these for the monetary integration of Africa.

The financial–crisis-exposed major flaws in the design of the Eurozone include (i) the absence of effective economic governance mechanism; (ii) the retention of banking supervision and resolution at national levels; (iii) the lack of financial back-stops and crisis resolution mechanisms at the union level; and (iv) defects in the design of the Eurozone's common central bank. For the African monetary integration initiatives, this research works gathered several lessons from the identified defects in Eurozone's architecture.

Some of the Eurozone crisis-prompted lessons derived for the monetary integration initiatives and plans for Africa in general and the economic and monetary sub-regions of Africa in particular suggest that: (1) there is need for gradual process of monetary integration transition for Africa; (2) asymmetric shocks are natural, inherent and in-built; (3) banking union is essential for the proposed monetary union of African diverse countries with proposed common currency; (4) it is necessary to institute banking systemic fragility/instability prevention mechanism; (5) fiscal extravagance and associated painful effects should be forestall; (6) public finance sustainability should be evaluated at the pre-take-off stage of the African monetary cooperation project; (7) a mechanism for the restructuring of unsustainable debt is essential for the African monetary union project; (8) possible sovereign government-banking system loop should be envisaged at the pre-take-off stage of the African monetary cooperation project; (9) the design of problematic financial systems should be avoided; (10) the enhancement of surveillance and monitoring of regional financial markets is necessary; (11) a normal, traditional central bank is desirable for the African monetary union project; (12) there is necessity for crisis prevention and crisis resolution mechanisms; (13) proper evaluation of the costs/benefits of international financial integration within the African monetary integration plans should be undertaken; (14) there is need to have the consciousness of Africa's political and socio-cultural differences; (15) strong direct link and relationship between inflation target and fiscal targets is vital.

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